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SUBJECT: CHILE'S LITHIUM: WORLD'S LEADING PRODUCER EXPANDING

CAPACITY TO MEET GLOBAL DEMAND

REF: LA PAZ 267

11. (SBU) SUMMARY: Chile is the leading lithium chemical producer in the world. Two companies, Sociedad Qumica y Minera de Chile S.A. (SQM) -- the world's biggest producer of iodine and lithium -- and Chemetall of Germany, dominate the production of lithium carbonate, largely by exploiting brine sources in Chile. In 2008, SQM produced 95,400 MT of lithium, which is 30 percent of the world market share, and Chemetall supplied about 28 percent. SQM, which expanded its lithium carbonate capacity in 2008 from 30,000 to 40,000 tons/year in 2008, plans to expand production capacity further in 2009-2010 to meet growing lithium demand. End summary.

Chile Replaces U.S. as Leading Producer of Lithium

- 12. (U) For almost 50 years, the United States dominated the world lithium market, and North Carolina used to be the largest U.S. producer. In the mid-1990s, Chile became the leading producer of lithium -- the lightest metal with physical properties that make it well-suited to store energy. Lithium has become a key part of rechargeable batteries, particularly those used in consumer electronics.
- ¶3. (U) Chile began producing lithium carbonates in 1984. After the discovery that Chilean brines were a lower-cost source and Chilean operations cut prices to gain market share, North Carolina's lithium mining operations closed in 1998. Today the only active lithium plant in the U.S. is a brine operation in Nevada, which produces an unknown proprietary amount of the metal.
- 14. (U) Despite being an abundant metal, economically viable lithium deposits are not plentiful. Along with Bolivia, which faces significant infrastructure and political challenges to developing its lithium resources, Chile has the most extensive lithium reserves in the world. According to the U.S. Geological Service (USGS), Bolivia has an estimated 5.4 million tons of lithium, Chile has 3 million tons, China has 1.1 million tons, and the U.S. has about 410,000 tons. USGS estimates that Chile's Salar de Atacama contains approximately 27 percent of the world's reserve base of the metal.
- 15. (U) Chile is particularly well positioned to take advantage of recent demand increases for lithium. The battery industry doubled its consumption of lithium carbonate between 2003 and 2007, and some analysts are predicting double-digit annual sales growth for lithium carbonate for at least the next three years. In addition, lithium ion (Li-ion) batteries are gaining in popularity for defense, automotive, and aerospace applications due to their high energy density. Li-ion batteries may be adopted by the global automobile industry as it transitions to more electric vehicles.

Two Companies Dominate Lithium Market

16. (U) Two companies, Sociedad Qumica y Minera de Chile S.A. (SQM) -- the world's biggest producer of iodine and lithium -- and Chemetall of Germany, through its Chilean branch called La Sociedad Chilena de Lithio, dominate the production of lithium carbonate by exploiting brine sources in Chile. In 2007, Chile exported 41,125 tons of lithium carbonate, as well as small amounts of lithium hydroxide and lithium chloride. Reflecting a production increase in 2008, SQM alone produced 95,400 MT of lithium in 2008 -- 30 percent of the world market share and all of it from Chile. A close second, Chemetall, which mines lithium from both the U.S. and Chile, had about 28 percent of the world market last year.

Lithium is a Material of "Nuclear Interest"

17. (U) Lithium is regarded as an issue of national security. Despite huge investments in their mining operations in northern Chile, neither company owns Chile's lithium reserves. This is because lithium is regarded as a "material of nuclear interest" and is regulated by Chile's Nuclear Energy Commission (CChEN), which owns/controls the reserves. Under Chilean law, lithium concessions are handled outside the general system for granting mining concessions, and are subject to a special administrative concession system.

SQM Increasing Lithium Production Capacity

¶8. (U) SQM started operations in Chile in 1996 and, as of December 2008, held rights to exploit the mineral resources of 197,000 hectacres in Salar de Atacama. Although the total reserves of Salar de Atacama are unknown and subject to ever-evolving technology, a

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recent SQM presentation estimated the site at approximately 18 million tons of lithium-carbonate equivalent.

- 19. (U) SQM, which gets about 11 percent of its revenue from lithium, recently reported profits of \$501.41 million in 2008, up from \$180 million in 2007. SQM's Chief Executive Officer indicated to the press that lithium demand would grow in 2009 and profits are expected to increase. The company is also counting on lower costs in 2009 in key areas including energy, raw materials and exchange rates.
- 110. (U) SQM expanded its capacity to extract lithium carbonate from 30,000 to 40,000 tons/year in the third quarter of 2008 and is projecting capital expenditures of \$300 million this year, some of which will go toward expanding lithium capacity. The company announced in January that it successfully placed two series of bonds in the Chilean market for approximately US\$173 million. The financial resources will be used by SQM to refinance short—and long—term debt and to fund its capital expenditures program.

Chile's Lithium Faces Competition From China

111. (U) Chile's lithium producers face competition from China, which supplies about 23 percent of the world's lithium carbonate. China's costs have historically been higher because it extracts lithium from spodumene minerals. Recently, however, China started producing lithium from brine, which is a cheaper method of extraction.

COMMENT: Chile's Position Secure in the Short-Term

113. (SBU) SQM anticipates being able to ride out the current economic crisis based, in part, on increasing consumer demand for lithium. Possible development of Bolivia's extensive reserves (reftel), uncertainties about the technology for electric car batteries, increasing competition from China and a potentially evolving lithium recycling market, however, could change the long-term picture for lithium demand. In the short-term, however, it appears that Chile's position as the world's leading producer of lithium is secure, and companies operating in Chile appear quite capable of stepping up to meet the challenges of increasing global

demand for lithium from the country's substantial reserves. End comment. SIMONS